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EXAMINER

HAND, MELANIE JO

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3761

NOTIFICATION DATE	DELIVERY MODE
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08/20/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

DETAILED ACTION

1. In view of the Pre-Appeal Conference Request filed on March 18, 2009, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Tatyana Zalukaeva/

Supervisory Patent Examiner, Art Unit 3761

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, 5, 6, 9-15 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 2, 11 and 18 explicitly recite open ended ranges

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for density of the recited first storage layer material. These open-ended ranges are indefinite in scope and thus the claim is rendered indefinite. It is examiner's position that this is not an open ended range that complies with MPEP 2173.05 (c), i.e. it is not an open-ended range whose upper limit is enabled by the disclosure. It is examiner's position that there is at least one density value less than infinite density that does not permit the claimed invention to operate as intended.

4. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The range "maximally 20 mm" is not an acceptable open-ended range per MPEP 2173.05 (c) because, while it is clear that zero is not included in the range, the range must have a lower limit to render the claim definite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 16, 28 and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by Guidotti et al (U.S. Patent No. 6,429,351).

With respect to **claim 16**: Guidotti discloses an absorbent article comprising the following: a liquid permeable upper surface defined by liquid-permeable casing sheet 1, a liquid impermeable lower surface defined by liquid-impermeable casing sheet 2, and an absorbent structure in the collective form of layers 19 and 23 arranged between the liquid permeable upper surface and the liquid impermeable lower surface (Fig. 2b, Col. 8, lines 52-62), which article in the longitudinal direction has a crotch portion and two end portions (Fig. 1), wherein the absorbent structure 19,23 comprises an acquisition layer 23 and at least one first storage layer 19, and said first storage layer in the crotch portion of the absorbent structure has longitudinally extending apertures defining cavities 24 extending through an entire thickness of the first storage layer 19 (Fig. 2b), wherein the first storage layer 19 has a first surface facing the liquid permeable upper surface of the article, and a second surface facing away from the liquid permeable surface of the article, wherein the first storage layer 19 lies between the acquisition layer 23 and the liquid permeable upper surface defined by layer 1. (Fig. 2b)

With respect to **claim 28**: The apertures defining cavities 24 disclosed by Guidotti are in the form of longitudinal channels considered herein to be adapted to direct liquid in a direction towards the end portions of the absorbent structure. ('351, Col. 8, lines 62-65)

With respect to **claim 29**: The apertures disclosed by Guidotti are spaces defining cavities 24 capable of holding liquid before the liquid is absorbed by the first storage layer. ('351, Col. 8, lines 62-65)

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7. Claims 16, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Guidotti et al (U.S. Patent No. 6,429,351)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to **claim 16**: Guidotti discloses an absorbent article comprising the following: a liquid permeable upper surface defined by liquid-permeable casing sheet 1, a liquid impermeable lower surface defined by liquid-impermeable casing sheet 2, and an absorbent structure in the collective form of layers 19 and 23 arranged between the liquid permeable upper surface and the liquid impermeable lower surface (Fig. 2b, Col. 8, lines 52-62), which article in the longitudinal direction has a crotch portion and two end portions (Fig. 1), wherein the absorbent structure 19,23 comprises an acquisition layer 23 and at least one first storage layer 19, and said first storage layer in the crotch portion of the absorbent structure has longitudinally extending apertures defining cavities 24 extending through an entire thickness of the first storage layer 19 (Fig. 2b), wherein the first storage layer 19 has a first surface facing the liquid permeable upper surface of the article, and a second surface facing away from the liquid permeable surface of the article, wherein the first storage layer 19 lies between the acquisition layer 23 and the liquid permeable upper surface defined by layer 1. (Fig. 2b)

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With respect to **claim 28**: The apertures defining cavities 24 disclosed by Guidotti are in the form of longitudinal channels considered herein to be adapted to direct liquid in a direction towards the end portions of the absorbent structure. ('351, Col. 8, lines 62-65)

With respect to **claim 29**: The apertures disclosed by Guidotti are spaces defining cavities 24 capable of holding liquid before the liquid is absorbed by the first storage layer. ('351, Col. 8, lines 62-65)

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-3, 5, 6, 14, 17, 18, 22, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti et al ('351) in view of Widlund et al (WO 94/10956 A1).

With respect to **claim 1**: Guidotti discloses an absorbent article comprising the following: a liquid permeable upper surface defined by liquid-permeable casing sheet 1, a liquid impermeable lower surface defined by liquid-impermeable casing sheet 2, and an absorbent structure in the

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collective form of layers 19 and 23 arranged between the liquid permeable upper surface and the liquid impermeable lower surface (Fig. 2b, Col. 8, lines 52-62), which article in the longitudinal direction has a crotch portion and two end portions (Fig. 1), wherein the absorbent structure 19,23 comprises an acquisition layer 23 and at least one first storage layer 19, and said first storage layer in the crotch portion of the absorbent structure has longitudinally extending apertures defining cavities 24 extending through an entire thickness of the first storage layer 19 (Fig. 2b), wherein the first storage layer 19 has a first surface facing the liquid permeable upper surface of the article, and a second surface facing away from the liquid permeable surface of the article, wherein the first storage layer 19 lies between the acquisition layer 23 and the liquid permeable upper surface defined by layer 1. (Fig. 2b)

As to the limitation “wherein said first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer”, Guidotti discloses that an admixed material according to WO 94/10956 A1 to Widlund is suitable, wherein more superabsorbent than what Guidotti discloses can be mixed in with the other components, i.e. more than 20% SAP. However Guidotti does not explicitly disclose a specific amount above 20%. Widlund discloses a material containing 30-70% superabsorbent (which overlaps the claimed range of at least 50%) and discloses that this is an effective material for absorbing and retaining absorbed fluid. Therefore it would be obvious to one of ordinary skill in the art to modify the article of Guidotti by using the material of Widlund having the disclosed amount of superabsorbent with a reasonable expectation of success to ensure a material is used that effectively absorbs and retains incoming fluid. The density of the material of Widlund is 0.4-1.0 g/cc, which overlaps the claimed range of a density exceeding 0.4 g/cm³.

With respect to **claim 2**: Guidotti discloses that an admixed material according to WO 94/10956

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A1 to Widlund is suitable, however Guidotti does not explicitly disclose a specific density for a material having the claimed SAP content amount. The density of the material of Widlund is 0.4-1.0 g/cc, which overlaps the claimed range of a density exceeding 0.4 g/cm³. The motivation to modify the article of Guidotti by using the material disclosed by Widlund having an SAP content and density within the claimed range is stated *supra* with respect to claim 1.

With respect to **claim 3**: Guidotti discloses that an admixed material according to WO 94/10956

A1 to Widlund is suitable, wherein more superabsorbent than what Guidotti discloses can be mixed in with the other components, i.e. more than 20% SAP. However, Guidotti does not explicitly disclose a specific amount above 20%. Widlund discloses a material containing 30-70% superabsorbent by weight of a super absorbent material calculated on the total weight of the first storage layer (which overlaps the claimed range of at least 70% by weight of a super absorbent material calculated on the total weight of the first storage layer) and discloses that this is an effective material for absorbing and retaining absorbed fluid. The motivation to modify the article of Guidotti by using the material disclosed by Widlund having an SAP content within the claimed range is stated *supra* with respect to claim 1.

With respect to **claim 5**: The apertures disclosed by Guidotti comprise longitudinal channels defining cavities 24. ('351, Fig. 2b)

With respect to **claim 6**: Guidotti discloses that the cavities 24 do not have a width exceeding 20 mm. It is examiner's position, based upon Fig. 2b, that Guidotti discloses cavities 24 that are as large or smaller than the material pieces of layer 19. Thus, it is examiner's position that, while Guidotti does not explicitly disclose that the material between the apertures in the crotch portion

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of the first storage layer, exhibits a width being maximally 20 mm, it would be obvious to one of ordinary skill in the art to modify the material such that the width is the same as the width of the cavities with a reasonable expectation of success to allow room for expansion of the material pieces upon absorption of fluid while preventing occlusion of the cavities which guide the fluid to the material pieces.

With respect to **claim 14**: The absorbent structure disclosed by Guidotti further comprises a second storage layer 25 containing a lower amount of super absorbent material calculated on the total weight of the storage layer than the first storage layer, inasmuch as it does not contain any superabsorbent material. ('351, Col. 10, lines 26-28) The second storage layer 25 being arranged between the acquisition layer 23 and the liquid impermeable lower surface defined by backsheet 2. (Fig. 2b)

With respect to **claims 17,18**: As to the limitation "wherein said first storage layer comprises at least 50 percent by weight of a super absorbent material calculated on the total weight of the first storage layer", Guidotti discloses that an admixed material according to WO 94/10956 A1 to Widlund is suitable, wherein more superabsorbent than what Guidotti discloses can be mixed in with the other components, i.e. more than 20% SAP. However Guidotti does not explicitly disclose a specific amount above 20%. Widlund discloses a material containing 30-70% superabsorbent (which overlaps the claimed range of at least 50%) and discloses that this is an effective material for absorbing and retaining absorbed fluid. Therefore it would be obvious to one of ordinary skill in the art to modify the article of Guidotti by using the material of Widlund having the disclosed amount of superabsorbent with a reasonable expectation of success to ensure a material is used that effectively absorbs and retains incoming fluid. The density of the

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material of Widlund is 0.4-1.0 g/cc, which overlaps the claimed range of a density exceeding 0.4 g/cm³.

With respect to **claim 22**: The absorbent structure disclosed by Guidotti further comprises a second storage layer 25 containing a lower amount of super absorbent material calculated on the total weight of the storage layer than the first storage layer 19, inasmuch as it does not contain any superabsorbent material. ('351, Col. 10, lines 26-28) The second storage layer 25 being arranged between the acquisition layer 23 and the liquid impermeable lower surface defined by backsheet 2. (Fig. 2b)

With respect to **claim 26**: The apertures defining cavities 24 disclosed by Guidotti are in the form of longitudinal channels considered herein to be adapted to direct liquid in a direction towards the end portions of the absorbent structure. ('351, Col. 8, lines 62-65)

With respect to **claim 27**: The apertures disclosed by Guidotti are spaces defining cavities 24 capable of holding liquid before the liquid is absorbed by the first storage layer. ('351, Col. 8, lines 62-65)

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti ('351) in view of Widlund ('956), as applied to claim 1 above, and further in view of Olsen et al (U.S. Patent No. 5,849,003).

With respect to **claim 9**: The absorbent article disclosed by Guidotti comprises a liquid permeable top sheet 1. Guidotti does not disclose that the liquid permeable top sheet and the acquisition layer 23 are thermally joined in a hollow space in the first storage layer created by

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said apertures. Widlund also does not disclose such joining of the topsheet with the acquisition layer in the apertures. Olsen teaches an absorbent article in which a topsheet is bonded to an underlying acquisition layer (capillary channel bun 44) that functions as a storage layer, which is in turn bonded to an absorbent core that functions as an acquisition layer. Olsen teaches that the topsheet is bonded at the point of apertures to the capillary fibers of the capillary bun 44. This bonding occurs via hot melt adhesives, thus the topsheet and first storage layer 44 of Olsen are thermally joined to activate the hot melt adhesives in a hollow space in the first storage layer 44 created by said capillaries. ('003, Col. 23, lines 3-33) Olsen teaches that this allows fluid to flow more efficiently through the topsheet and first storage layer 44 to the core. Thus it would be obvious to one of ordinary skill in the art to modify the article of Guidotti as modified by Widlund by thermally joining the topsheet and acquisition layer in a hollow space in the first storage layer 36 created by apertures as taught by Olsen to more efficiently guide fluid into the channels defined by said apertures to the absorbent core.

12. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti ('351) in view of Widlund ('956), as applied to claim 1 above, and further in view of Berg et al (U.S. Patent No. 5,180,622).

With respect to **claim 10**: Guidotti discloses that the acquisition layer is an absorbent foam layer, but does not explicitly disclose polyacrylate based super absorbent foam material. Widlund also does not disclose a foam acquisition layer. Berg teaches a polyacrylate foam material used in an absorbent core 41 of a diaper 20. (Fig. 1) (Col. 22, lines 61-65). The absorbent core is comprised of an acquisition zone 56 (Col. 32, lines 35-44) and since the core material is uniform throughout, said acquisition zone 56 is also comprised of polyacrylate foam material. Berg teaches that said foam material is formed by an acrylic acid monomer allowed to

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polymerize with the aid of an interparticle crosslinking agent sprayed on the acrylic acid monomers. (Col. 7, lines 40-46, Col. 14, lines 28-39) Berg teaches that such a material integrated in an absorbent article enhances fluid uptake rate and minimizes gel blocking (Abstract). Therefore, it would be obvious to one of ordinary skill in the art to modify the acquisition layer taught by Guidotti so as to be comprised of a polyacrylate foam sheet material as taught by Berg to enhance fluid uptake rate and minimize gel blocking.

With respect to **claim 12**: The acquisition layer 23 disclosed by Guidotti is a fibrous layer including superabsorbent particles, however Guidotti does not disclose a specific superabsorbent and the Widlund publication, to which Guidotti makes reference, also does not disclose polyacrylate-based particles. Berg teaches a polyacrylate material in a fibrous carrier (e.g. tissue) used in an absorbent core 41 of a diaper 20. (Fig. 1) ('622, Col. 22, lines 61-65). The absorbent core is comprised of an acquisition zone 56 ('622, Col. 32, lines 35-44) and since the core material is uniform throughout, said acquisition zone 56 is also comprised of polyacrylate foam material. Berg teaches that said foam material is formed by an acrylic acid monomer allowed to polymerize with the aid of an interparticle crosslinking agent sprayed on the acrylic acid monomers. ('622, Col. 7, lines 40-46, Col. 14, lines 28-39) Berg teaches that such a material especially in film form integrated in an absorbent article enhances fluid uptake rate. ('622, Abstract) Therefore, it would be obvious to one of ordinary skill in the art to modify the acquisition layer taught by Lindsay so as to be comprised of a polyacrylate foam sheet material as taught by Berg to enhance fluid uptake rate.

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13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti et al ('351) in view of Widlund et al ('956), as applied to claim 1 above, and further in view of McBride (U.S. Patent Application Publication No. 2004/0019340).

With respect to **claim 13**: Guidotti does not disclose that the acquisition layer is corona treated. Widlund also does not disclose corona treatment of any article layers. McBride teaches an absorbent article having a topsheet and acquisition layer in which either or both are treated via corona treatment ('340, ¶0037) to improve affinity to water and water handling. Therefore, it would be obvious to one of ordinary skill in the art to modify the article of Guidotti as modified by Widlund by corona treating the acquisition layer as disclosed by McBride to improve its affinity for water and fluid handling as taught by McBride.

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti et al ('351) in view of Widlund et al ('956), as applied to claim 1 above, and further in view of Lindsay et al (U.S. Patent No. 6,613,955).

With respect to **claim 15**: Guidotti does not disclose that the second storage layer 25 partially or entirely encloses the first storage layer 19. Widlund also does not disclose a second storage layer that partially or entirely encloses the first storage layer. Lindsay discloses an absorbent article in Fig. 6 in which the second storage layer has a central portion extending between the liquid impermeable surface defined by the outer surface of backsheet 14 and the acquisition layer 38, providing an identical function to the second storage layer 20 disclosed in the embodiment of Fig. 1B. As can be seen in Fig. 1B, the second storage layer having a central portion as disclosed in Fig. 6. Lindsay discloses that this second storage layer provides a void

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for receiving absorbent member 18 (Col. 17, lines 32-36), which will in turn provide additional leakage protection under absorbent member 18. Therefore, it would be obvious to one of ordinary skill in the art to modify the article of Guidotti as modified by Widlund so as to have a second storage layer as disclosed by Lindsay that partially encloses the first storage layer with a reasonable expectation of success to provide additional leakage protection.

15. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guidotti et al ('351) in view of Lindsay et al ('955).

With respect to **claim 23**: Guidotti does not disclose that the second storage layer 25 partially or entirely encloses the first storage layer 19. Lindsay discloses an absorbent article in Fig. 6 in which the second storage layer has a central portion extending between the liquid impermeable surface defined by the outer surface of backsheet 14 and the acquisition layer 38, providing an identical function to the second storage layer 20 disclosed in the embodiment of Fig. 1B. As can be seen in Fig. 1B, the second storage layer having a central portion as disclosed in Fig. 6. Lindsay discloses that this second storage layer provides a void for receiving absorbent member 18 (Col. 17, lines 32-36), which will in turn provide additional leakage protection under absorbent member 18. Therefore, it would be obvious to one of ordinary skill in the art to modify the article of Guidotti so as to have a second storage layer as disclosed by Lindsay that partially encloses the first storage layer with a reasonable expectation of success to provide additional leakage protection.

Allowable Subject Matter

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16. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Indicating Allowable Subject Matter

17. The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 11, the closest prior art, the combination of Guidotti and Widlund does not suggest a polyacrylate-based superabsorbent foam material for the acquisition layer. Berg remedies the deficiency regarding a polyacrylate-based superabsorbent foam acquisition layer but does not disclose any Gurley stiffness value for the foam acquisition layer. It is examiner's position that it would not be obvious to first modify the Guidotti article so as to comprise a specific superabsorbent foam as disclosed by Berg, the polyacrylate-based foam, and then further modify that polyacrylate-based foam disclosed by Berg so as to have a specific Gurley stiffness when none of Guidotti, Widlund or Berg address stiffness in any way in their respective disclosures.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE J. HAND whose telephone number is (571)272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melanie J Hand/
Examiner, Art Unit 3761

/Tatyana Zalukaeva/
Supervisory Patent Examiner, Art Unit 3761